

WHAT IS CLAIMED IS:

[1] A polymeric material for laser processing being characterized in that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) is crosslinked.

[2] A polymeric material for laser processing being characterized in that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) and a foaming agent (C) is crosslinked and foamed.

[3] A laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic copolymer and a base layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface.

[4] The laminated body for laser processing according to claim 3, wherein the peel strength is in the range of 2 to 40 N/cm when said polymer layer is peeled from said base layer at the interface with a peeling rate of 5 cm/min at 180 degrees.

[5] The laminated body for laser processing according to claim 4, wherein said polymer composition comprises a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B).

[6] The laminated body for laser processing according to claim 5, wherein said base layer is formed using a photopolymerizable composition, wherein a photopolymerizable composition comprising an elastomer and a compound having an ethylenical unsaturated group and a photoinitiator is photocured.

[7] A method for producing a laminated body for laser processing comprising:

a step for forming a polymer sheet by crosslinking a polymerizable composition containing an ethylenic copolymer;

a step for laminating a photopolymerizable layer containing an elastomer and a compound having an ethylenical unsaturated group and a photocuring initiator to the surface of the polymer sheet; and

a step for irradiating ultraviolet ray to one side of said photopolymerizable layer and photocuring said photopolymerizable layer to form a base sheet.

[8] A flexographic printing plate being characterized in that made of a polymeric material for laser processing that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) is crosslinked.

[9] A flexographic printing plate being characterized in that made of a polymeric material for laser processing that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and

an organic peroxide (B) and a foaming agent (C) is crosslinked and foamed.

[10] A flexographic printing plate characterized in that a printing pattern is formed by engraving the surface of said polymer layer for laser processing in the laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic copolymer and a base layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface, with laser processing.

[11] A flexographic printing plate according to claim 10, wherein the peel strength is in the range of 2 to 40 N/cm when said polymer layer is peeled from said base layer at the interface with a peeling rate of 5 cm/min at 180 degrees.

[12] A flexographic printing plate according to claim 10, wherein a film of polymer resin is laminated on the other surface of said base layer of said laminated body for laser processing.

[13] A method for producing a flexographic printing plate comprising:

a step for making a printing pattern by engraving the surface of said polymer layer for laser processing in said laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic copolymer and a base

layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface;

a step for cutting said polymer layer for laser processing along said printing pattern; and

a step for peeling a region which said printing pattern of said polymer layer for laser processing has not been formed from said base layer.

[14] A material for a seal characterized in that is made of a polymeric material for laser processing that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) is crosslinked.

[15] A material for a seal characterized in that is made of a polymeric material for laser processing that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) and a foaming agent (C) are crosslinked and foamed.